

Appl. No. 09/989,426

IN THE CLAIMS:

Please amend the claims as follows:

1. (Amended) A metal cord for reinforcing a rubber article comprising:

a core formed of one filament; and

a sheath formed of 1 to 6 filaments arranged around the core,

wherein said filament of the core is formed of a waved filament waved in a two-dimensional wave shape having crest portions and trough portions in a repeated manner, in a state before being bundled, and is twisted with said sheath while applying the torsion so as to be formed in a three-dimensional wave shape within said metal cord.

2. (Amended) The metal cord for reinforcing a rubber article as claimed in claim 1, wherein a diameter d of said core filament is between 0.15 and 0.50 mm and substantially the same as that of the filament of said sheath.

[Please add the following claims:]

--3. A metal cord for reinforcing a rubber article comprising:

a core formed of one filament, wherein said filament has a two-dimensional wave shape with crest portions and trough portions

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in a repeated manner; and

a sheath formed of 1 to 6 filaments arranged around said core;
wherein said sheath and said core are in a twisted state and
form a three-dimensional wave shape; and

the diameter of said two-dimensional wave shape of the
filament of the core is larger than the diameter of the filament of
the core itself.

A3
Costa
4. The metal cord for reinforcing a rubber article as claimed
in claim 3, wherein a diameter d of said core filament is between
0.15 and 0.50 mm.

5. The metal cord for reinforcing a rubber article as claimed
in claim 3, wherein a diameter d of the filament of said sheath is
between 0.15 and 0.50 mm.

6. The metal cord for reinforcing a rubber article as claimed
in claim 3, 4 or 5, wherein a diameter d of said core filament is
substantially the same diameter d as that of the filament of said
sheath.

7. The metal cord for reinforcing a rubber article as claimed
in claim 1, wherein the filament of the core in the two-dimensional
wave shape is a zigzag shape.

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8. The metal cord for reinforcing a rubber article as claimed in claim 1, wherein the filament of the core in the two-dimensional wave shape is a sine wave shape.

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Cord
9. The metal cord for reinforcing a rubber article as claimed in claim 1, wherein the filament of the core in the two-dimensional wave shape has a wave pitch P_w being between 3.0 and 9.0 mm and a wave height h being between 0.20 and 0.80 mm

10. The metal cord for reinforcing a rubber article as claimed in claim 1, wherein a torsion pitch P_n at a time of twisting the filament of the core in the two-dimensional wave shape is between 5.0 and 600.0 mm.

11. The metal cord for reinforcing a rubber article as claimed in claim 1, wherein a twist pitch P_y at a time of twisting the filament of the sheath wave shape is between 5.0 and 30.0 mm.

12. The metal cord for reinforcing a rubber article as claimed in claim 1, wherein said torsion pitch P_n of the filament of the core is larger than the twist pitch P_y of the filament of the sheath.

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13. A method of producing a metal cord having a core formed of one filament, and a sheath formed of 1 to 6 filaments arranged around the core, comprising the steps of:

forming said filament of the core from a waved filament having a two-dimensional wave shape with crest portions and trough portions in a repeated pattern, in a state before being bundled, and twisting said filament with said sheath while applying torsion such that said filament is formed into a three-dimensional wave shape within the metal cord.

14. The method of producing a meal cord as claimed in claim 13, wherein a diameter d of said core filament is between 0.15 and 0.50 mm and substantially the same as that of the filament of said sheath.

15. The method of producing a metal cord as claimed in claim 13, wherein the filament of the core in the two-dimensional wave shape is a zigzag shape.

16. The method of producing a metal cord as claimed in claim 13, wherein the filament of the core in the two-dimensional wave shape is a sine wave shape.

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17. The method of producing a metal cord as claimed in claim 13, wherein the filament of the core in the two-dimensional wave shape has a wave pitch P_w being between 3.0 and 9.0 mm and a wave height h being between 0.20 and 0.80 mm.

18. The method of producing a metal cord as claimed in claim 13, wherein a torsion pitch P_n at a time of twisting the filament of the core in the two-dimensional wave shape is between 5.0 and 600.0 mm.

19. The method of producing a metal cord as claimed in claim 13, wherein a twist pitch P_y at a time of twisting the filament of the sheath wave shape is between 5.0 and 30.0 mm.

20. The method of producing a metal cord as claimed in claim 13, wherein said torsion pitch P_n of the filament of the core is larger than the twist pitch P_y of the filament of the sheath.--

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